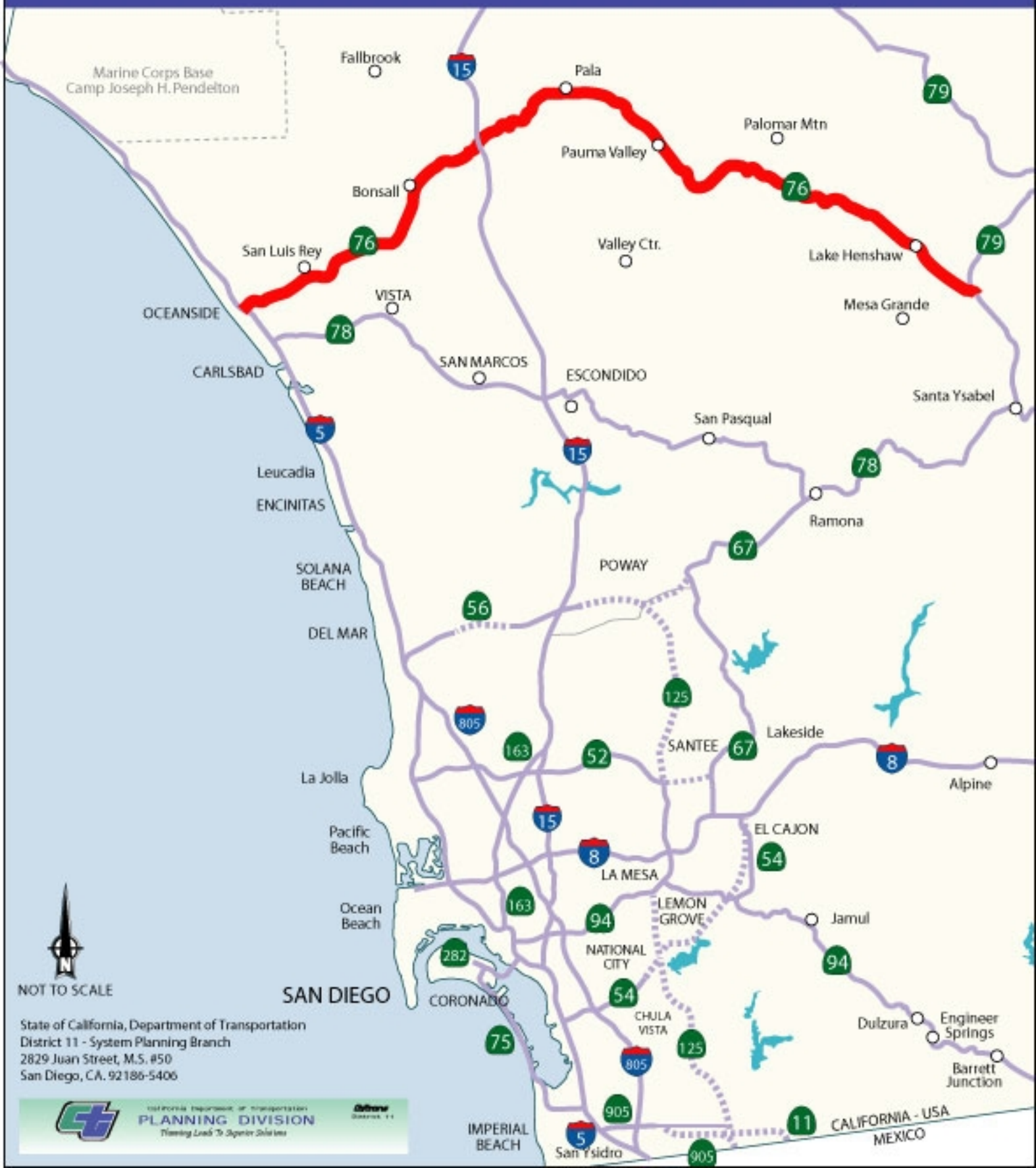
SR-76 TRANSPORTATION CONCEPT REPORT

District 11 - System Planning

March 2002



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PLANNING DIVISION
Planning Leads To Superior Solutions

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Existing Facility

Table S-1 shows the existing facility and operating conditions for SR-76 in San Diego County. The five-day Average Daily Traffic (ADT) is based on 2000 data.

TABLE S-1
EXISTING FACILITY AND OPERATING CONDITIONS

Segment/ County/ Post Mile	Location	# of Lanes/ Facility Type	ADT *	Peak Hour V/C Ratio	Peak Hour Operating LOS
1) SD 0.0 - R2.7	I-5 to Foussat Road	4E	44,300	0.75	D
2) SD R2.7 - 3.4	Foussat Road to Douglas Drive	4E	51,600	0.96	E
3) SD 3.4 – 6.1	Douglas Drive to College Boulevard	4E	39,800	0.72	D
4) SD 6.1 – 7.5	College Boulevard to Melrose Drive	4E	38,200	0.70	D
5) SD 7.5 - 12.4	Melrose Drive to South Mission Roa	2C	29,700	1.26	F
6) SD 12.4 - R17.3	South Mission Road to I-15	2C	15,200	0.71	D
7) SD R17.3 - 17.9	I-15 to Pankey Road	2C	5,500	0.23	A
8) SD 17.9 - 19.4	Pankey Road to Rice Canyon Road	2C	5,500	0.23	A
9) SD 19.4 – 23.6	Rice Canyon Road to Pala-Temecula	2C	5,200	0.22	A
10) SD 23.6 – 24.3	Pala-Temecula to Lilac Road	2C	4,100	0.20	A
11) SD 24.3 – 29.0	Lilac Road to Pauma Reservation Rc	2C	4,100	0.18	A
12) SD 29.0 – 32.9	Pauma Reservation to Valley Center	2C	3,600	0.16	A
13) SD 32.9 - 43.7	Valley Center to East Boundary La Jolla Reservation	2C	3,700	0.17	A
14) SD 43.7 – 52.3	East Boundary La Jolla Reservation to SR-79	2C	2,300	0.12	A

2C = Two lane conventional highway; 4E = Four lane expressway
ADT = Average Daily Traffic
V/C = Volume to Capacity
LOS = Level of Service

* ADT's were determined prior to the opening of Tribal Gaming facilities. Current ADT's may be higher. Peak Hour V/C Ratios and Peak Hour Operating LOS base are only intended as a general planning guideline. Results may differ based on usage of other traffic analysis methodologies.

2020 Transportation Concept

Table S-2 shows the Transportation Concept for SR-76.

TABLE S-2
2020 TRANSPORTATION CONCEPT

Segment/ County/ Post Mile	Location	# of Lanes/ Facility Type	ADT*	Peak Hour V/C Ratio	Peak Hour Operating LOS	Concept LOS
1) SD 0.0 - R2.7	I-5 to Foussat Road	6E	52,600	0.72	C	E
2) SD R2.7 - 3.4	Foussat Road to Douglas Drive	6E	53,300	0.73	C	E
3) SD 3.4 – 6.1	Douglas Drive to College Boulevard	6E	48,400	0.66	C	E
4) SD 6.1 – 7.5	College Boulevard to Melrose Drive	6E	51,400	0.69	C	E
5) SD 7.5 - 12.4	Melrose Drive to South Mission Road	6C	45,700	0.71	D	E
6) SD 12.4 - R17.3	South Mission Road to I-15	4C	30,000	0.75	D	E
7) SD R17.3 - 17.9	I-15 to Pankey Road	4C	36,500	0.95	E	D
8) SD 17.9 - 19.4	Pankey Road to Rice Canyon Road	4C	36,500	0.95	E	D
9) SD 19.4 – 23.6	Rice Canyon Road to Pala-Temecula	4C	31,700	0.84	D	D
10) SD 23.6 – 24.3	Pala-Temecula to Lilac Road	4C	16,600	0.45	B	D
11) SD 24.3 – 29.0	Lilac Road to Pauma Reservation Rd	4C	15,300	0.42	B	D
12) SD 29.0 – 32.9	Pauma Reservation to Valley Center	4C	9,900	0.28	A	D
13) SD 32.9 – 43.7	Valley Center to East Boundary La Jolla Reservation	4C	5,300	0.18	A	D
14) SD 43.7 – 52.3	East Boundary La Jolla Reservation To SR-79	2C	3,300	0.20	A	D

2C/4C = Two or four lane conventional highway; 6E = six lane expressway
6E = Six Lane Expressway
ADT = Average Daily Traffic
V/C = Volume to Capacity
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* ADT's for Segments 1-6 were derived from the San Diego Association of Government's 2020 Cities/Counties Forecast Smart Growth Preferred Plan (Fall 2000). ADTs for Segments 6-14 are based on the County of San Diego's modified Series 9 Build Out Cumulative LOS forecast. Peak Hour V/C Ratios and Peak Hour Operating LOS are only intended as a general planning guideline. Results may differ based on usage of other traffic analysis methodologies. See Tribal Gaming section later in this report.

2020 Transportation Concept Facility Improvements

The following table shows mainlane facility improvements to SR-76 that are proposed to approach or achieve the 2020 Transportation Concept. The V/C ratio and Operating LOS listed assume completion of the proposed mainlane facility improvements.

TABLE S-3
2020 TRANSPORTATION CONCEPT FACILITY IMPROVEMENTS

Segment/ County/ Post Mile	Location	Improvement Description	V/C Ratio	Peak Hour Operating LOS	Concept LOS
1) SD 0.0 - R2.7	I-5 to Foussat Road	Upgrade from 4E to 6E	0.72	C	E
2) SD R2.7 - 3.4	Foussat Road to Douglas Drive	Upgrade from 4E to 6E	0.73	C	E
3) SD 3.4 – 6.1	Douglas Drive to College Boulevard	Upgrade from 4E to 6E	0.66	C	E
4) SD 6.1 – 7.5	College Boulevard to Melrose Drive	Upgrade from 4E to 6E	0.69	C	E
5) SD 7.5 - 12.4	Melrose Drive to South Mission Road	Upgrade from 2C to 6C	0.71	D	E
6) SD 12.4 - R17.3	South Mission Road to I-15	Upgrade from 2C to 4C	0.75	D	E
7) SD R17.3 - 17.9	I-15 to Pankey Road	Upgrade from 2C to 4C	0.95	E	D
8) SD 17.9 - 19.4	Pankey Road to Rice Canyon Road	Upgrade from 2C to 4C	0.95	E	D
9) SD 19.4 – 23.6	Rice Canyon Road to Pala-Temecula	Upgrade from 2C to 4C	0.84	D	D
10) SD 23.6 – 24.3	Pala-Temecula to Lilac Road	Upgrade from 2C to 4C	0.45	B	D
11) SD 24.3 – 29.0	Lilac Road to Pauma Reservation Rd	Upgrade from 2C to 4C	0.42	B	D
12) SD 29.0 – 32.9	Pauma Reservation to Valley Center	Upgrade from 2C to 4C	0.28	A	D
13) SD 32.9 - -43.7	Valley Center to East Boundary La Jolla Reservation	Upgrade from 2C to 4C	0.18	A	D

Additional improvements such as transit, non-motorized facilities, park and ride lots, transportation demand management strategies, transportation system management strategies, and additional lanes should also be developed either as part of the 2020 Transportation Concept where appropriate or the Post-2020 Ultimate Transportation Corridor.

TRANSPORTATION CONCEPT REPORT
STATE ROUTE 76 (SR-76)
11- SD-76
P.M. 0.0-52.3

INTRODUCTION AND STATEMENT OF PLANNING INTENT

This Transportation Concept Report (TCR) is a planning document, which describes the Department's basic approach to the development of a given corridor. Considering reasonable financial constraints and projected travel demand, this TCR establishes a 20-year transportation planning concept for State Route 76 (SR-76) and identifies modal transportation options needed to achieve the concept. The concept considers operating Levels of Service (LOS), modal improvements, and new technologies. The TCR also considers potential long-term needs for the corridor beyond the 20-year planning period.

The TCR is a preliminary planning phase document leading to subsequent programming and the project development process. As such, the specific proposed nature of improvements (i.e., number of lanes, access control, etc.) may change in later project development stages, with final determinations made during the Project Study Report, Project Report, and design phases.

Each TCR must be viewed as an integral part of a planned system. The TCR is based on the completion of the 20-year system. The system has been developed to meet anticipated travel demand generated from regional growth forecasts. Removal of any portion of a route from the system will adversely affect travel on parallel or intersecting routes.

Route Description

The western terminus of State Route 76 (SR-76) is in San Diego County at the junction with Interstate 5 (I-5), Post-Mile (PM) SD R0.0. SR-76 extends 52.3 miles to the east, terminating at State Route 79 (SR-79) (PM SD 52.3) near Lake Henshaw in San Diego County.

SR-76 was added to the State Highway System in 1933. In 1959, the portion of the route from I-5 (PM SD R0.0) to Interstate 15 (I-15) (PM SD R17.3) was added to the Freeway and Expressway (F&E) System. The freeway routing for this portion was adopted in 1963, and freeway agreements with the City of Oceanside and the County of San Diego were executed in 1964 and 1965.

Purpose of Route

SR-76 is a principal east-west route that carries intraregional, interregional, commuter and recreational travel. In San Diego County, SR-76 traverses the city of Oceanside and the unincorporated communities of Bonsall, Fallbrook, Pala, Pauma Valley, Rincon, and Lake Henshaw. The western portion of the route in the city of Oceanside and easterly to I-15 serves as a major commuter route. The remainder of the route in San Diego County serves outlying rural communities and a number of Indian Nations.

SR-76 intersects a number of State routes, including I-5, I-15, and SR-79. The closest parallel State Route to SR-76 in San Diego County is State Route 78 (SR-78), which varies between three and 15 miles to the south.

Existing Facility Classifications

SR-76 has a federal functional classification of Other Principle Arterial –Freeway or Expressway (Urban) from I-5 to Jeffries Ranch Road. SR-76 is classified as an Other Principal Arterial (Urban) from Jeffries Ranch Road to Olive Hill Road. The remainder of the route from Olive Hill Road to SR-79 is classified as a Minor Arterial (Rural).

SR-76 is not included as a part of the Interregional Road System (IRRS).

From I-5 (PM SD R0.0) to Mission Road (PM SD 12.4), SR-76 is designated as a State Terminal Access Route providing a connection to the National Network for Surface Transportation Assistance Act trucks. From Mission Road to I-15 (PM SD R17.3) SR-76 is California Legal for trucks with 40 foot Kingpin to Rear Axle lengths. From I-15 to Pala Mission Road (PM SD 23.0), trucks with Kingpin to Rear Axle lengths over 30 feet are not advised. From Pala Mission Road to Valley Center Road (PM SD 12.3), trucks with Kingpin to Rear Axle lengths over 30 feet are not advised.

The entire length of SR-76 is on the California State Scenic Highway System and is eligible to be designated as an official State Scenic Highway.

For maintenance programming purposes, the State Highway System has been classified as Class 1, 2, and 3 highways based on the Maintenance Service Level (MSL) descriptive definitions. MSL 1 contains route segments functionally classified as rural principal arterials (PA) and their urban extension (P1P). MSL 2 contains route segments classified as principal arterials not in MSL 1, route segments functionally classified as minor arterials not in MSL 3, and route segments with a Route Concept of Maintain and Improve. MSL 3 indicates a route or route segment with the lowest maintenance priority. Typically, MSL 3 contains route segments with a Route Concept of Maintain Only, route segments functionally classified as collectors and local roads, route segments with relatively low traffic volumes and route segments being considered for relinquishment, rescission, or where a new alignment will replace the existing

facility. Furthermore, route segments where the District does not anticipate spending money and route segments where route continuity is necessary are also assigned an MSL 3 designation.

SR-76 is classified as an MSL 2 route for its entire length.

Route Segments

Table 1 lists the segments, post-miles, locations, number of lanes and facility type, and whether the segments are in an urban or rural area.

TABLE 1
ROUTE SEGMENTATION

Segment	County/ Post Mile	Location	# Lanes/ Facility Type	Urban/ Rural
1	SD 0.0 - R2.7	I-5 to Foussat Road	4E	U
2	SD R2.7 - 3.4	Foussat Road to Douglas Drive	4E	U
3	SD 3.4 – 6.1	Douglas Drive to College Boulevard	4E	U
4	SD 6.1 – 7.5	College Boulevard to Melrose Drive	4E	U
5	SD 7.5 - 12.4	Melrose Drive to South Mission Road	2C	U
6	SD 12.4 - R17.3	South Mission Road to I-15	2C	R
7	SD R17.3 - 17.9	I-15 to Pankey Road	2C	R
8	SD 17.9 - 19.4	Pankey Road to Rice Canyon Road	2C	R
9	SD 19.4 – 23.6	Rice Canyon Road to Pala-Temecula	2C	R
10	SD 23.6 – 24.3	Pala-Temecula to Lilac Road	2C	R
11	SD 24.3 – 29.0	Lilac Road to Pauma Reservation Rd	2C	R
12	SD 29.0 – 32.9	Pauma Reservation to Valley Center	2C	R
13	SD 32.9 – 43.7	Valley Center to East Boundary La Jolla Reservation	2C	R
14	SD 43.7 – 52.3	East Boundary La Jolla Reservation to SR-79	2C	R

U = Urban
2/4C = Two or four lane conventional highway; 6E = Six lane expressway

Existing Facility

SR-76 is a four lane expressway from Interstate 5 to Melrose Drive. SR-76 is a two lane conventional highway from Melrose Drive to State Route 79.

A physical description of the existing facility geometrics in a segment-specific format is shown in Table 2.

TABLE 2
EXISTING FACILITY GEOMETRICS

Segment/ Post Mile	# Lanes & Facility Width	Outside Shoulder Width	Inside Shoulder Width	Maximum R/W Width	Median Width	Grade Line
1) SD 0.0 - R2.7	4E @ 3.7 (12)	3.1 (10)	1.5 (5)	24.4 (80)	9.25 (30)	F & R
2) SD R2.7 - 3.4	4E @ 3.4–3.7 (11–12)	2.2 -3.1 (7-10)	0.6 (2)	24.4 (80)	4.3-6.8 (14-22)	F
3) SD 3.4 – 6.1	4E @ 3.7 (12)	0.9-3.1 (3-10)	0-1.5 (0-5)	24.4 (80)	0-9.5 (0-30)	F
4) SD 6.1 – 7.5	4E @ 3.7 (12)	2.5-3.1 (8-10)	0-1.5 (0-5)	24.4 (80)	0-9.5 (0-30)	F
5) SD 7.5 – 12.4	2C @ 3.7 (12)	0-3.4 (0-11)	0 (0)	24.4 (80)	0 (0)	F
6) SD 12.4 – R17.3	2C @ 3.7-4.3(12–14)	0-2.5 (0-8)	0 (0)	24.4 (80)	0-4.9 (0-16)	F
7) SD R17.3 – 17.9	2C @ 3.7 (12)	2.5 (8)	0 (0)	24.4 (80)	0-4.9 (0-16)	F
8) SD 17.9 – 19.4	2C @ 3.4-3.7 (11–12)	0 (0)	0 (0)	24.4 (80)	0 (0)	F
9) SD 19.4 – 23.6	2C @ 3.4-4.9 (11–16)	0-1.9 (0-6)	0 (0)	24.4 (80)	0 (0)	F & R
10) SD 23.6 – 24.3	2C @ 3.1-4.9 (10–16)	0-1.9 (0-6)	0 (0)	24.4 (80)	0 (0)	R
11) SD 24.3 – 29.0	2C @ 3.1-4.9 (10–16)	0-1.9 (0-6)	0 (0)	24.4 (80)	0 (0)	R
12) SD 29.0 – 32.9	2C @ 3.1-4.9 (10–16)	0-1.9 (0-6)	0 (0)	24.4 (80)	0 (0)	F& R
13) SD 32.9 – 43.7	2C @ 3.1-4.9 (10–16)	0-1.9 (0-6)	0 (0)	24.4 (80)	0 (0)	M
14) SD 43.7 – 52.3	2C @ 3.1-4.9 (10–16)	0-1.9 (0-6)	0 (0)	24.4 (80)	0 (0)	F & R

Note: Widths are in meters (parenthesis widths are in feet)
Grade Line Designations:
F = Flat, R = Rolling, M = Moderate
2C, 4C, 6C = (2, 4, 6) lane conventional facility
R/W = Right of Way

There are no existing ramp meters on SR-76.

There are several arterial streets in north San Diego County within the SR-76 corridor that could provide an alternative to commuters wishing to avoid peak hour congestion on the state highway. They are listed in Table 3. However, some of these streets currently fail to provide an effective alternative due to physical inadequacies, numerous traffic signals, access conflicts, and general traffic congestion. Improvements may be required.

TABLE 3
PARALLEL ARTERIAL ROUTES

Segment	Arterial Name	Description
1-4	Oceanside Boulevard/Bobier Drive	I-5 to Vista Way
3-4	Douglas Drive/North River Road	SR-76 in Oceanside to SR-76 near East Vista Way
4-6	Gopher Canyon Road	East Vista Way to I-15
5-6	West Lilac Road/Camino Del Rey	SR-76 in Bonsall to I-15
6	Mission Road	SR-76 in Bonsall to I-15

Park and ride facilities encourage and support the use of commuter or express transit and car/vanpooling for a portion of longer vehicle trips and consequently reduce Vehicle Miles of Travel (VMT) within the San Diego region. There are four Park and Ride lots near or adjacent to SR-76 at the following locations: the I-15/SR-76 interchange, Maxson Street and Mission Avenue/Frontier Drive in Oceanside, and Sweetgrass Lane in Bonsall.

North San Diego County Transit route numbers 303, 313, and 388 provide local bus service along SR-76. Route number 303 serves Serra Mesa Housing and Camp Pendelton. It runs along SR-76 from El Camino Real to the Oceanside Transit Center. Route 303 has 30-minute headways on both weekdays and weekends. It runs along SR-76 from the Oceanside Transit Center to Fireside Drive and from Rancho del Oro to College Avenue. Route 313 serves between Mesa Margarita and the Oceanside Transit Center. Headways for Route 313 are every 60 minutes on both weekdays and weekends. Route 388 serves the areas of Pala, Pauma Valley, Rincon, Pala Vista, Valley Center, and Escondido. Route 388 runs on SR-76 from County Route 16 to Valley Center Road. Route 388 provides service three times daily on both weekdays and weekends. Routes that mainly serve other areas near SR-76, but still traverse SR-76, are Routes 306 and 316. Other mass transit options such as commuter rail, trolley, and express bus do not serve SR-76, but transfers to commuter rail are available at the Oceanside Transit Center, while transfers to Express bus are available at the Escondido Transit Center.

Bicycle travel on SR-76 is allowable for the entire length of the route. Portions of SR-76 contain bicycle lanes.

SOCIO-ECONOMICS

This section includes a land use/corridor growth and demographic analysis for existing and future conditions in this corridor.

Corridor Growth and Demographics

The SANDAG Series 9 Regional Population and Employment Forecast anticipates a population growth change in the San Diego Region from 2.66 million people in 1995 to 3.85 million people in 2020. This represents a 44.4 percent increase in population. Series 9 also projects the Housing Stock in the San Diego Region will increase from 996,684 units in 1995 to 1.4 million units in 2020, a 40.9 percent change. The Total Labor Force is also expected to grow from 1.19 million workers in 1995 to 1.7 million workers in 2020 for an increase of 45.1 percent. These growth changes will create a demand for additional public facilities. Complementary land use and transportation improvements will be required to accommodate forecasted growth, and to provide the additional public facilities. Table 4 shows appropriate existing and future population.

TABLE 4
POPULATION GROWTH

Jurisdiction	Current Year	2020	Percentage Change
Oceanside	160,800	202,600	26.0
Fallbrook Subregional Area	44,900	59,800	33.2
Valley Center Subregional Area	20,200	40,200	99.0
Pauma Subregional Area	6,000	9,900	65.0

Sources: San Diego Association of Governments (SANDAG)
Note: The current year for San Diego County areas is 2000.

Regional Growth Management Strategy

The region-wide growth forecast, provided by SANDAG, indicates another one million people will be added to the county by 2020. This population could easily translate to more than 500,000 additional vehicles and over 400,000 new jobs. This additional population will further strain the housing stock, transportation system, public services, environment and economy. Recent developments in the evolving REGION2020 arena include the development of a definition of smart growth in the San Diego region. The June 2000 working draft on "REGION2020: Smart Growth Definition, Principles, and Designations" states that, "Smart growth, is a compact, efficient, and environmentally sensitive pattern of development that provides people with additional travel, housing, and

employment choices by focusing future growth away from rural areas and closer to existing and planning job centers and public facilities".

SANDAG is working with the staffs and elected officials of the local jurisdictions to address issues related to smart growth implementation. The first step is for local governments to to make specific commitments to support REGION2020 and implement SMART GROWTH principles.

A method to ensure compatibility between land use and the statewide transportation system is the Caltrans Development Review process. Potential development projects are reviewed to determine what impacts they may have on State transportation facilities. Impacts can include level of service changes, right of way protection issues, operations and/or maintenance issues, or growth inducing/cumulative impacts. Development Review also analyzes proposed developments to ensure consistency with regional and State transportation planning documents.

Potential major development projects within the SR-76 corridor that will significantly increase congestion on area surface streets, intersections, and on SR-76 are shown in Table 5. Each of these projects is expected to generate at least 10 000 daily trips. Although not listed in the table, there are a substantial number of smaller development projects that may have a cumulative impact on traffic in the corridor. The table includes projects for which an Environmental Impact Report, a Specific Plan or a Master Plan has been or will be prepared. Because of uncertainties associated with the existing and future socioeconomic and political climates, the scale of development may be subject to change, and it is possible that some of the listed projects may not be developed.

TABLE 5
TRIP INDUCING DEVELOPMENT PROJECTS

Project Name	Dwelling Units	Square Meters (ft^2)	Hectares (Acreage)	Trips Generated Daily
Pala Reservation – Permanent Gaming Facility		17,400 (187,000)	10 (24)	24,310
Pauma Reservation –Permanent Gaming Facility		8,128 (87,500)		4,000-5,200
Rincon Reservation – Interim Gaming Facility		5,806 (62,500)	16 (40)	4,500-5,850
Rincon Reservation – Permanent Gaming Facility + hotel		16,722 (180,000)	16 (40)	6,500-8,270
San Pasqual Reservation – Temporary Gaming Facility		3,799 (40,900)	6 (16)	2,016 –2,621
San Pasqual Reservation – Permanent Gaming Facility + hotel		18,100 (195,000)		7,574-9,632

Source: Caltrans District 11 Intergovernmental Review Branch and Report on the Potential Impacts of Tribal Gaming on Northern and Eastern San Diego County (November 2000).

NATIVE AMERICAN RESERVATIONS

Eighteen federally recognized Native American reservations are located in the San Diego region. The Native American reservations are located in the rural backcountry of the unincorporated area of San Diego. Access to the reservations is by San Diego County maintained arterials and State Highways. Several of the reservations are adjacent to SR-76.

One consideration with regards to these reservations deals with Tribal Employment Rights Ordinances (TERO) for projects on Indian reservations. Based on powers inherent in Tribal sovereignty, Tribes may enact these ordinances which require all employers operating within Tribal jurisdiction to provide Indian preference in employment and the application of a TERO tax to fund the administration of the ordinances.

Indian Gaming is another special consideration for impact on State Highways. Passage of Proposition 1A in the spring 2000 election legalized the creation of State Compacts between the Indian Tribes and the State of California for Indian gaming projects. Individual tribes in the San Diego region have entered Compacts with the State of California for the creation and/or expansion of Indian Gaming projects on their reservations. These developments are approved through the Bureau of Indian Affairs.

Many of these Indian Gaming facilities have been constructed. Some have opened as temporary, interim facilities, while others have been constructed as permanent gaming complexes.

Existing Indian Gaming facilities east of I-15 include Pala, Pauma, Rincon and San Pasqual. The County of San Diego has prepared a document entitled Report on the Potential Impacts of Tribal Gaming on Northern and Eastern San Diego County (November 2000). This report also includes a section that discusses a traffic assessment of the off-reservation impacts to County-maintained arterials and State highways near the existing and proposed Indian Gaming projects. An updated report is expected to be released in 2002.

A SANDAG Series 9 20 year forecast was used to provide the base volumes for the ultimate road network. The estimated number of trips generated by each of the Indian Gaming projects were then hand distributed onto this adjacent ultimate network. These trip generation rates and the amount of increased traffic may vary for each gaming facility. The resultant Average Daily Traffic and Level of Service for the year 2020 has been included in our 2020 Transportation Concept for the portion of SR-76 east of I-15. The Levels of Service are intended as a planning guideline only. Predicted Levels of Service may differ depending on what type of traffic analysis methodology is utilized.

Additional traffic studies may be warranted in the future as conditions change

2020 TRANSPORTATION CONCEPT

The 2020 Transportation Concept includes State highway, transit service, system management and travel reduction, goods movement, international border, aviation and nonmotorized components. The State Highway and transit components are listed in Table 6, while the other components are discussed in the Concept Rational section. These components are examined in segments for traffic analysis and other purposes. The 2020 traffic projections for SR-76 are based on Caltrans traffic projections and the San Diego Association of Governments (SANDAG) Series 9 2020 Cities/Counties regional “smart growth” forecasts and assume completion of the future regional transportation system. The 2020 traffic projections are subject to change based on periodic traffic forecasting model adjustments and ongoing supplemental transportation studies. The 2020 Transportation Concept LOS is based on planning guidelines.

TABLE 6
2020 TRANSPORTATION CONCEPT

Segment/ County/ Post Mile	Location	# of Lanes/ Facility Type	ADT*	Peak Hour V/C Ratio	Peak Hour Operating LOS	Concept LOS
1) SD 0.0 - R2.7	I-5 to Foussat Road	6E	52,600	0.72	C	E
2) SD R2.7 - 3.4	Foussat Road to Douglas Drive	6E	53,300	0.73	C	E
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V/C = Volume to Capacity
LOS = Level of Service

*ADT's for Segments 1-6 were derived from the San Diego Association of Government's 2020 Cities/Counties Forecast Smart Growth Preferred Plan (Fall 2000). ADTs for Segments 6-14 are based on the County of San Diego's modified Series 9 Build Out Cumulative LOS forecast. Peak Hour V/C Ratios and Peak Hour Operating LOS are only intended as a general planning guideline. Results may differ based on usage of other traffic analysis methodologies.

CONCEPT RATIONALE

An intermodal, access oriented approach is necessary in order to provide for the projected increased person-trips in the SR-76 corridor.

Highway Component

Caltrans is proposing 2020 transportation concept facility improvements for SR-76. The highway component of the 2020 Transportation Concept proposes to widen SR-76 from I-5 to Melrose Drive from a four-lane expressway to a six-lane expressway. The Concept also includes widening and/or realigning SR-76 from a two-lane to a six-lane conventional highway from Melrose Drive to South Mission Road. From South Mission Road to I-15, the Concept is to widen the two lane conventional highway to four lanes. Widening to a four-lane

conventional highway is also proposed from I-15 to the eastern boundary of the La Jolla Reservation.

Transit Component

The Metropolitan Transit Development Board (MTDB) undertook a two-year strategic planning process called Transit Works that culminated in the adoption of a *Transit First* strategy in October 2000. MTDB, NCTD, and SANDAG subsequently worked together to develop a strategy in which Transit First and Fast Forward would serve as the foundation for shaping the SANDAG Regional Transit Vision (RTV).

Based on the current RTV, a variety of transit service concepts are proposed for the San Diego region, including Yellow Car, Red Car, Blue Car and Green Car service. All of these services would have connectivity with each other.

Transit service on SR-76 is expected to include Red Car Service (Corridor Express Services), which will operate in existing trolley or light rail corridors. This expanded service will utilize buses or flextrolleys either on existing or other exclusive rights of way. Stations on Red Car service lines would average one mile apart, and would generally be located in mixed-use, pedestrian-oriented community activity centers.

Blue Car Service (Local Services) are expected to operate on portions of SR-76, including east of I-15. To a large extent, Blue Car service is a continuation of the existing local bus network.

System Management and Travel Reduction Component

Another component of the 2020 Transportation Concept is greater utilization and expansion of the existing and proposed arterial street network in the corridor. These arterial improvements are expected to substantially increase mobility and reduce peak period demands on the freeway. They can provide routes for short interregional trips and even provide an alternative route for some regional trips. Realignment and/or widening, correcting physical inadequacies, minimizing side friction, and improving the traffic flows of arterials within the corridor can increase corridor capacity. Improvements include preferential signal treatment, limitation and separation of left-turn movements, limited driveway and other access controls, and surface street HOV lanes for ridesharing and transit.

SANDAG has developed a *Regional Arterial System Project Priority List* that includes unfunded/underfunded candidate projects that could compete for discretionary transportation funding allocations. An additional study related to arterial street improvements is the SANDAG *Traffic Signal Optimization Program*

(April, 1994). This program was developed to enhance inter-jurisdictional coordination, to provide detailed guidelines for the implementation of a countywide traffic management system, and to identify a conceptual plan for future implementation of Intelligent Transportation System technologies. The proposed signal system improvements are expected to significantly reduce vehicle emissions and traffic congestion.

In addition to the aforementioned Traffic Signal Optimization Program, air quality improvements will be achieved primarily by the implementation of Transportation Control Measures. The goal of the *Transportation Control Measures for the Air Quality Plan* report developed by SANDAG in March, 1992 is to reduce traffic congestion and motor vehicle emissions in the San Diego air basin in order to meet the requirements of the state's Congestion Management Act, the California Clean Air Act (CCAA) of 1988, and the federal Clean Air Act Amendment (CAA) of 1990. The components of this report include a commute travel reduction program, a college travel reduction program, a goods movement /truck operation control program, a Transportation Capacity Expansion Program, a Traffic Systems Management Program, and an Indirect Source Control Program which includes a general travel reduction program and a land use program. TCM improvements are intended to reduce travel demand during peak period traffic hours. Additional TCM components include staggered work hours, parking management, developer and employer incentives, and implementation of ordinances.

Transportation System Management (TSM) and TCM air quality improvements tend to overlap and work synergistically. The total effect of these improvements will improve air quality, will assist in alleviating traffic congestion, and will result in an increased number of person-trips within the SR-76 corridor.

An additional TSM measure in the 2020 Transportation Concept includes the provision of additional Park and Ride facilities in appropriate locations within the SR-76 corridor. The consultant-prepared *San Diego Regional Park and Ride Study* (March, 1994), which analyzed and evaluated several planned and potential Park and Ride lot locations throughout the San Diego Region, includes the SR-76 corridor. A potential Park and Ride lot location is located at I-5 and Vandegrift Boulevard, north of the intersection of I-5 and SR-76.

Goods Movement Component

Under the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, additional emphasis was placed on the movement of goods in an integrated transportation network. It is essential to identify critical elements within major goods movement corridors in order to develop effective strategies for managing, maintaining and improving transportation system connectivity. Goods movement planning incorporates analysis of impacts on noise, air quality, land use,

congestion and safety. Goods movement issues have a significant economic impact on our regional economy. The movement of goods in San Diego involves the systems of rail, ports and shipping, trucking, and air cargo.

On June 9, 1998, the President signed into law PL 105-178, the Transportation Equity Act for the 21st Century (TEA-21), authorizing highway, highway safety, transit and other surface transportation programs from 1998-2003. TEA-21 builds on the initiatives established in ISTEA. The Act adds programs that address traffic safety, economic competitiveness and international trade.

SR-76 is a State Terminal Access route providing a connection to the National Surface Transportation Assistance Act Network from I-5 to Mission Road.

International Border Component

With the implementation of the North American Free Trade Agreement (NAFTA) in 1992, increased numbers of freight movement have impacted the region's transportation network. Within the last three years alone, NAFTA's export growth is estimated at $34 billion and help support nearly 476,000 new jobs in California. The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 was recently reauthorized for the next six years under the Transportation Equity Act for the 21st Century (TEA-21). ISTEA requires studying the advisability of establishing a discretionary International border crossing program and the development of a multimodal assessment of existing and emerging international trade corridors within Canada, Mexico and the United States. The reauthorization has complemented initiatives from the original act and has improved in areas to address safety, economic competitiveness and international trade. A total of $700 million for the reauthorization will be spent through the 2003 fiscal year on coordinated planning, design and construction of corridors of national significance, economic growth, and international & interregional trade.

Aviation Component

The San Diego regions aviation system includes San Diego International Airport-Lindbergh Field, 11 public general aviation airports, 10 private general aviation airports (with restricted public access), four military air stations, and 32 heliports. There is one public general aviation airport and two private airports adjacent to the SR-76 corridor. The Oceanside Municipal Airport had 55,000 annual flight operations in 1998. There are 63 aircraft based at this airport. The two private airports, Lyall-Roberts and Pauma Valley, are located in the rural area east of I-15.

Non-Motorized Component

Bicycle travel is allowable on all portions of SR-76.The Non-Motorized Component includes continued utilization of the existing Regional Bikeway System, the Bus Bicycle Rack Program and the Bicycle Locker program at Park and Ride lots. Bicycle parking facilities are available at the Oceanside Transit Center.

The Americans with Disabilities Act (ADA) of 1990 established a clear and comprehensive prohibition of discrimination on the basis of disability. Under Title II, Local and State governments with responsibility for public streets, roads, or walkways must provide curb ramps at existing pedestrian crosswalks. In new construction, curb ramps must be provided at any intersection having curbs or other barriers to entry from a street-level pedestrian walkway. ADA requires public transportation facilities accessible to persons with disabilities. ADA is a Federal mandate without designated funding, but allows for phase-in compliance. Prior to 1994, ADA accessibility on Caltrans facilities was phased in as facilities were altered or constructed.

SANDAG is currently developing design guidelines to address pedestrian issues related to transportation.

Tourism Component

The California Division of Tourism estimates that recreational activities and the travel industry generates $55.2 billion dollars per year and sustains 700,000 jobs statewide, which makes California first in the nation for visitors and earnings. California drew over 250 million person trips in 1998, of which, San Diego received over 30 million person trips. Of the most attractive places to see in San Diego, Sea World in Mission Bay, Old Town, and Balboa Park are the major lures. The numbers for Sea World totaled over 3.7 million visitors, Old Town over 7.1 million visitors, and Balboa Park over 14 million visitors in 1998. The Gaslamp Quarter National Historic District in downtown San Diego also has its fair share of visitors along with the Del Mar Fairgrounds. One last San Diego attraction, especially in the State of California, that has enticed visitors here is the recreational opportunities. On SR-76 east of I-15, a number of Tribal Gaming and support facilities are expected to attract both tourists and residents.

AIR QUALITY

SR-76 is located in the San Diego Air Basin. Progress has been made in the San Diego Air Basin in attaining federal and state air quality standards. Federal and state standards have been met for lead, nitrogen dioxide, sulfur dioxide, and carbon monoxide (CO). The approximate western two-thirds of Air Basin is federally designated as a maintenance area for CO. Federal standards are being met for inhalable particulates labeled as PM10. State standards for PM10 have not been met and the possible addition of a PM2.5 standard may change the Air Basin's federal status as it relates to inhalable particulates.

Currently, the San Diego Air Basin is classified as a "serious" ozone non-attainment area under both the state and federal Clean Air Acts. The non-attainment classification, based on the amount of pollutant above the one hour standard, determines the minimum state and federal control requirements and the federal attainment deadline for the San Diego Region. The current federal one-hour standard for ozone may soon be altered to an eight hour standard. If this occurs there should be no change in the Air Basin's ozone classification.

COMPARISON OF CONCEPTS

Table 7 is comprised of a segment by segment comparison between the 1985 Route Concept Report and this current updated Transportation Concept Report.

TABLE 7
COMPARISON OF CONCEPTS

1985 Transportation Concept for 2005		2002 Transportation Concept for 2020	
Location	**# Lanes/ Facility Type**	**Location**	**# Lanes/ Facility Type**
I-5 to Frontier Drive	4E	I-5 to Foussat Road	6E
Frontier Drive to Old Grove Road	4E	Foussat Road to Douglas Drive	6E
Old Grove Road to North Santa Fe Road	4E	Douglas Drive to College Boulevard	6E
North Santa Fe Road to Olive Hill Road	4C	College Boulevard to Melrose Drive	6E
Olive Hill Road to South Mission Road	4C	Melrose Drive to South Mission Road	6C
South Mission Road to I-15	4C	South Mission Road to I-15	4C
I-15 to Pankey Road	4C	I-15 to Pankey Road	4C
Pankey Road to Rice Canyon Road	2C	Pankey Road to Rice Canyon Road	4C
Rice Canyon Road to SR-79	2C	Rice Canyon Road to Pala-Temecula	4C
		Pala-Temecula to Lilac Road	4C
		Lilac Road to Pauma Reservation Rd	4C
		Pauma Reservation to Valley Center	4C
		Valley Center to La Jolla Reservation	4C
		East Boundary La Jolla Reservation to SR-79	2C

2C, 4C, 6C = (2, 4, 6) Lane Conventional Freeway

2020 TRANSPORTATION CONCEPT FACILITY IMPROVEMENTS

Table 8 shows mainlane facility improvements to SR-76 that are proposed to approach or achieve the 2020 Transportation Concept. The V/C ratio and Operating LOS listed assume completion of the proposed mainlane facility improvements.

TABLE 8
2020 TRANSPORTATION CONCEPT FACILITY IMPROVEMENTS

Segment/ County/ Post Mile	Location	Improvement Description	V/C Ratio	Peak Hour Operating LOS	Concept LOS
1) SD 0.0 - R2.7	I-5 to Foussat Road	Upgrade from 4E to 6E	0.72	C	E
2) SD R2.7 - 3.4	Foussat Road to Douglas Drive	Upgrade from 4E to 6E	0.73	C	E
3) SD 3.4 – 6.1	Douglas Drive to College Boulevard	Upgrade from 4E to 6E	0.66	C	E
4) SD 6.1 – 7.5	College Boulevard to Melrose Drive	Upgrade from 4E to 6E	0.69	C	E
5) SD 7.5 - 12.4	Melrose Drive to South Mission Road	Upgrade from 2C to 6C	0.71	D	E
6) SD 12.4 - R17.3	South Mission Road to I-15	Upgrade from 2C to 4C	0.75	D	E
7) SD R17.3 - 17.9	I-15 to Pankey Road	Upgrade from 2C to 4C	0.95	E	D
8) SD 17.9 - 19.4	Pankey Road to Rice Canyon Road	Upgrade from 2C to 4C	0.95	E	D
9) SD 19.4 – 23.6	Rice Canyon Road to Pala-Temecula	Upgrade from 2C to 4C	0.84	D	D
10) SD 23.6 – 24.3	Pala-Temecula to Lilac Road	Upgrade from 2C to 4C	0.45	B	D
11) SD 24.3 – 29.0	Lilac Road to Pauma Reservation Rd	Upgrade from 2C to 4C	0.42	B	D
12) SD 29.0 – 32.9	Pauma Reservation to Valley Center	Upgrade from 2C to 4C	0.28	A	D
13) SD 32.9 - -43.7	Valley Center to East Boundary La Jolla Reservation	Upgrade from 2C to 4C	0.18	A	D

Additional improvements such as transit, non-motorized facilities, park and ride lots, transportation demand management strategies, transportation system management strategies, and additional lanes should also be developed either as part of the 2020 Transportation Concept where appropriate or the Post-2020 Ultimate Transportation Corridor.

POST 2020 ULTIMATE TRANSPORTATION CORRIDOR

The post-2020 Ultimate Transportation Corridor (UTC) describes the long-term (beyond the 20-year planning period) right of way requirements for a particular segment. The long-term needs are determined by investigation and analysis of Community Plans, General Plans, Transportation Plans, Land Use Plans, Environmental Documents, and other planning documents. The intent is to take advantage of or develop opportunities for long term right of way acquisition and to work with local and regional agencies to implement corridor preservation measures.

The UTC for SR-76 is the same as the 2020 Transportation Concept. However, additional improvements should be considered to address projected deficient levels of service. Future studies should analyze the potential impact of increased Tribal Gaming/Casino facilities in the SR-76 corridor. Because transportation planning and land use assumptions are dynamic processes, the UTC is subject to change.

LIST OF SYSTEM PLANNING ACRONYMS

ADT	Average Daily Traffic
APCD	Air Pollution Control District
CAA	Clean Air Act
CMP	Congestion Management Program
CTC	California Transportation Commission
DU	Dwelling Unit
EA	Environmental Assessment
EPA	Environmental Protection Agency
F&E	Freeway and Expressway System
FHWA	Federal Highway Administration
IBTC	International Border Trade Corridor
ICES	Intermodal Corridors of Economic Significance
IRRS	Interregional Route System
ISC	Indirect Source Control
ISTEA	Intermodal Surface Transportation Efficiency Act
ITIP	Interregional Transportation Improvement Program
ITMS	Integrated Traffic Management System
LOS	Level of Service
MSL	Maintenance Service Level
MTDB	Metropolitan Transit Development Board
NAAQS	National Ambient Air Quality Standards
NAFTA	North American Free Trade Agreement
NHS	National Highway System
PHV	Peak Hour Volume
PM	Post Mile
POE	Port of Entry
RAQS	Regional Air Quality Strategy
RAS	Regional Arterial System
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
R/W	Right of Way
SANDAG	San Diego Association of Governments
SCAG	Southern California Associations of Governments
SD&IV	San Diego and Imperial Valley Railroad
SHOPP	State Highway Operation and Protection Plan
STAA	Surface Transportation Assistance Act
STIP	State Transportation Improvement Program
TASAS	Traffic Accident Surveillance and Analysis System
TCM	Transportation Control Measure
TCR	Transportation Concept Report
TDM	Transportation Demand Management
TSM	Transportation Systems Management
V/C	Demand Volume to Capacity Ratio
VMT	Vehicles Miles Traveled

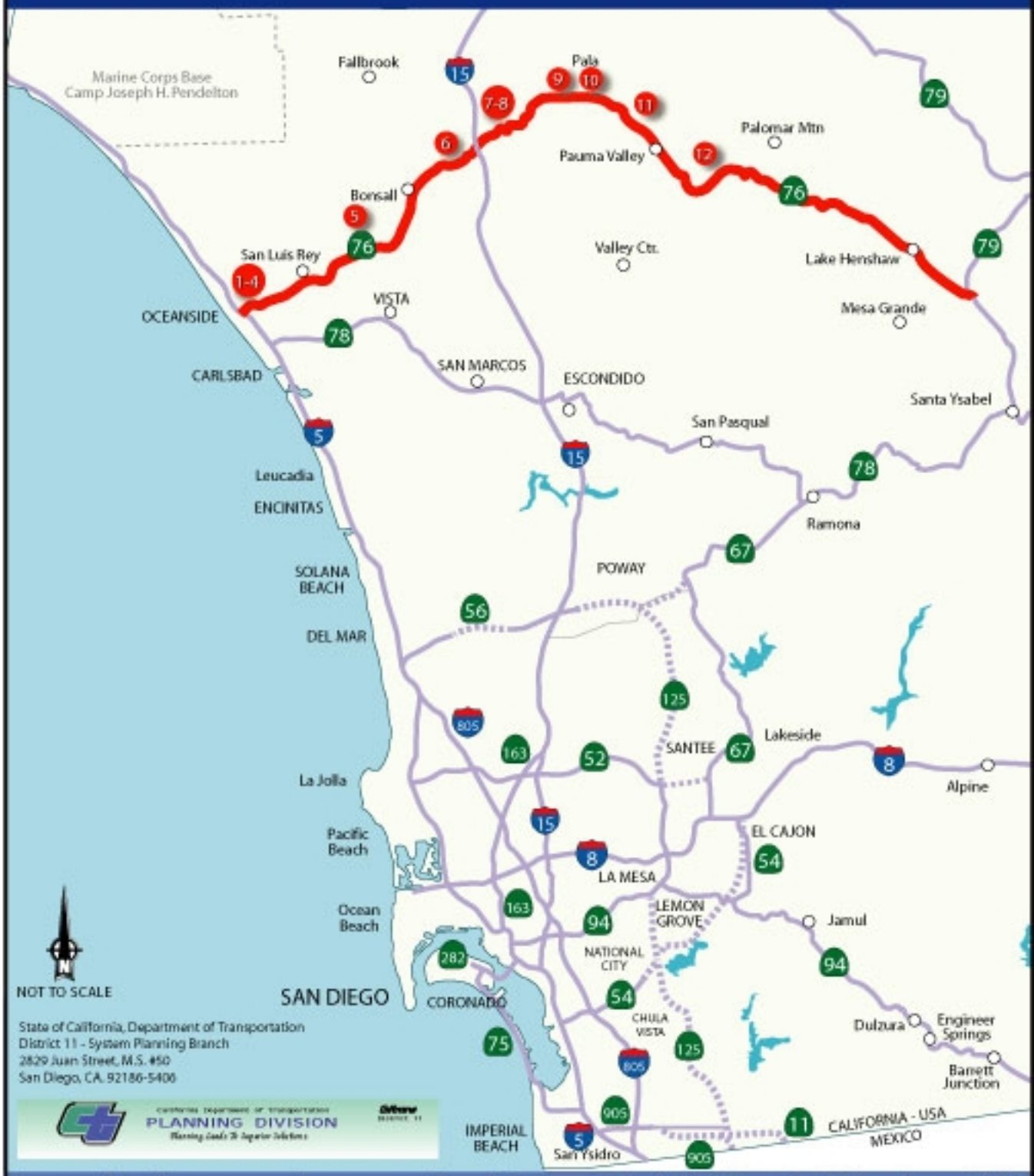
LEVEL OF SERVICE (LOS) DEFINITIONS

LOS is defined as a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. A LOS definition generally describes these conditions in terms of such factors as speed, travel time, freedom to maneuver, comfort and convenience, and safety. LOS definitions can generally be categorized as follows:

LOS	V/C	Congestion/Delay	Traffic Description
		(Used for two and four lane freeways and expressways)	
"A"	<.34	None	Free flow.
"B"	0.35-0.52	None	Free to stable flow, light to moderate volumes.
"C"	0.53-0.69	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted.
"D"	0.70-0.92	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
"E"	0.93-1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor.
		(Used for six lane freeways and expressways)	
"A"	< .39	None	Free flow
"B"	0.40-0.59	None	Free to stable flow, light to moderate volumes
"C"	0.60-0.74	None to Minimal	Stable flow, moderate volumes freedom to maneuver noticeably restricted
"D"	0.75-0.92	Minimal to Substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver
"E"	0.93-1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor

LOS	D/C	Congestion/Delay	Traffic Description
		(Used for conventional highways)	
“A”	>0.34	None	Free Flow
"B"	0.34-0.46	None	Free to stable flow, light to moderate volumes.
"C"	0.46-0.65	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted.
"D"	0.66-0.85	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
"E"	0.86-1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor.
“F”	>1.00	Considerable	Forced or breakdown flow Delay measured in average travel speed (MPH). Signalized segments experience delays >60.0 seconds/vehicle.

SR-76 TRANSPORTATION CONCEPT REPORT FACILITY IMPROVEMENTS



State of California, Department of Transportation
District 11 - System Planning Branch
2829 Juan Street, M.S. #50
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PLANNING DIVISION

Segment/Location	Improvement Description	Peak Hour Operating LOS	Concept LOS
(1-4) I-5 TO Melrose Drive	Upgrade from 4E to 6E	C	E
(5) Melrose Drive to South Mission Road	Upgrade from 2C to 4C	F	E
(6) South Mission Road to I-15	Upgrade from 2C to 4C	D	E
(7-8) I-15 to Rice Canyon	Upgrade from 2C to 4C	E	D
(9) Rice Canyon Road to Pala-Temecula	Upgrade from 2C to 4C	D	D
(10) Pala-Temecula to Lilac Road	Upgrade from 2C to 4C	B	D
(11) Lilac Road to Pauma Reservation Road	Upgrade from 2C to 4C	B	D
(12) Pauma Reservation to East Boundary La Jolla Reservation	Upgrade from 2C to 4C	A	D

I approve this Transportation Concept Report as the guide for development of SR-76 over the next 20 years.

Submitted By:

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5-1-02
Date

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5/23/02
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5/30/02
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